IN THE CLAIMS

I claim:

Claims 1-18	(canceled)
Claims 19-53	(withdrawn)
Claims 54-78	(previously presented)
Claims 79-99	(withdrawn)
Claims 100, 106, 113, 114	(currently amended)
Claims 101-105, 107, 109, 111, 117	(canceled)
Claims 108, 110, 112, 115, 116	(previously presented)

54. (previously presented) An apparatus for providing temperature sensing information comprising a resistive element accessible to a DC power source, a DC powered device, a DC power module, and an external monitoring device, wherein said DC power source is normally coupled to, and delivers DC power source temperature sensing information to said DC powered device, said apparatus further comprising:

a multi-conductor interface member electrically isolating said DC power source from said DC powered device, said multi-conductor interface member including a first plurality of conductors electrically connected with said DC power source, and a second plurality of conductors electrically connected with said DC powered device; and

a connection interface electrically coupled to said multi-conductor interface member and providing electrical contacts accessible to said resistive element, enabling selective interconnection among said DC power source, said DC powered device, said DC power module, and said external monitoring device, to effect said selective access to said resistive element's temperature sensing information.

55. (previously presented) The apparatus as claimed in Claim 54, wherein:

said DC power source is a battery;

said resistive element is in thermal contact with said battery; and

said resistive element is accessible by said multi-conductor interface member first plurality of conductors, via said connection interface, to said DC power module for the purpose of monitoring said battery's temperature.

56. (previously presented) The apparatus as claimed in Claim 54, wherein:

said DC power source is a battery;

said DC power module is a battery charger;

said resistive element is in thermal contact with said battery; and

said resistive element is accessible by said multi-conductor interface member first plurality of conductors, via said connection interface, to said battery charger for monitoring said battery's temperature.

57. (previously presented) The apparatus as claimed in Claim 54, wherein:

said DC power source is a battery;

said DC power module is a DC power supply;

said resistive element is in thermal contact with said battery; and

said resistive element is accessible by said multi-conductor interface member first plurality of conductors, via said connection interface, to said DC power supply for the purpose of monitoring said battery's temperature.

58. (previously presented) The apparatus as claimed in Claim 54, wherein:

said DC power module is a battery charger;

said resistive element is in thermal contact with said battery charger; and

said resistive element is accessible by said multi-conductor interface member first plurality of conductors, via said connection interface, to said DC powered device for the purpose of monitoring said battery charger's temperature.

59. (previously presented) The apparatus as claimed in Claim 54, wherein:

said DC power source is a battery;

said resistive element is in thermal contact with said battery; and

said resistive element is accessible, via a jumpered connector electrically coupled to said connection interface, to said DC powered device for enabling monitoring said battery's temperature.

60. (previously presented) The apparatus as claimed in Claim 54, wherein:

said DC power source is a "smart" battery;

said DC power module is a battery charger capable of transferring data;

said DC powered device includes a processor, normally coupled to said battery, decoupled from said battery by said multi-conductor interface member;

said resistive element is in thermal contact with said battery;

said resistive element is accessible to said battery charger by said multi-conductor interface member first plurality of conductors, for monitoring said battery temperature;

said DC powered device is accessible to said battery charger by said multi-conductor interface member second plurality of conductors, for communicating said temperature-sensing information to said DC powered device; and

said battery charger monitors said battery temperature and delivers information about said monitored battery temperature to said DC powered device, via said connector interface, for enabling both said DC powered device and said battery charger to monitor said battery's temperature.

61. (previously presented) The apparatus as claimed in Claim 54, wherein:

said DC power source is a battery;

said DC power module is a battery charger capable of transferring data;

said resistive element is in thermal contact with said battery;

said resistive element is accessible to said battery charger by a first set of conductors of said multi-conductor interface member first plurality of conductors, for monitoring said battery temperature;

said battery is accessible to said battery charger by a second set of conductors of said multi-conductor interface member first plurality of conductors, for charging said battery; and

said battery charger, via said connector interface, permitting monitoring of said battery temperature while charging said battery.

62. (previously presented) The apparatus as claimed in Claim 54, wherein:

said DC power module is a DC power supply capable of transferring data;

said DC powered device includes a processor, normally coupled to said battery, decoupled from said battery by said multi-conductor interface member;

said resistive element is in thermal contact with said DC power supply;

said resistive element is accessible to said DC powered device by a first set of conductors of said multi-conductor interface member second plurality of conductors, for monitoring said DC power supply temperature;

said DC power supply is accessible to said DC powered device by a second set of conductors of said multi-conductor interface member second plurality of conductors, for receiving power from said DC power supply; and

said DC powered device, via said connector interface, enabling monitoring said DC power supply temperature while receiving power from said DC power supply.

63. (previously presented) The apparatus as claimed in Claim 54, wherein:

said DC power source is a battery;

said DC power module is a data-enabled battery charger capable of transferring data; further

said DC power module includes a DC power supply capable of transferring data;

said DC powered device includes a processor, normally coupled to said battery, decoupled from said battery by said multi-conductor interface member;

said resistive element is in thermal contact with said battery;

said resistive element is accessible to said battery charger by a first set of conductors of said multi-conductor interface member first plurality of conductors, for monitoring said battery temperature;

said battery is accessible to said battery charger by a second set of conductors of said multi-conductor interface member first plurality of conductors, for charging said battery;

said DC power supply is accessible to said DC powered device by said multi-conductor interface member second plurality of conductors, for powering said DC powered device; and

said battery charger, via said connector interface, monitors said battery temperature while charging said battery; and further

said DC power supply enabling power delivery simultaneously to said DC powered device.

64. (previously presented) The apparatus as claimed in Claim 54, wherein:

said resistive element is a flexible resistive ink applied to an insulator medium in a thin continuous layer covering and entire area between two conductors, said resistive ink electrically in contact with an equal portion of each conductor;

said insulator medium electrically isolates said conductors in said multi-conductor interface member from said resistive element.

65. (previously presented) The apparatus as claimed in Claim 54, wherein a flexible apparatus for attaching to surfaces of a multiplicity of DC power sources and DC power modules is comprised of:

a flexible multi-conductor member including a first plurality of power and data conductors for providing access to a "smart" battery pack's power and data contacts; and further including

a second plurality of flexible power and data conductors for providing access to a "smart" DC powered device's power and data contacts, said DC powered device's power and data contacts normally coupled to mating contacts of said "smart" battery for

delivering power to said DC powered device, and for transferring data between said "smart" battery and said DC powered device;

said multi-conductor member further including a flexible central insulating medium, upon opposing faces of which are positioned electrically-conductive contacts of said first and second plurality of conductors,

a connection interface for electrically coupling an external DC power module to said multi-conductor member, providing said external DC power module access to said first and second plurality of conductors,

a user interposing said flexible multi-conductor member between said removable "smart" battery pack's contacts and said DC powered device's normally mating contacts, thereby electrically isolating said DC power source's contacts from said DC powered device's contacts, and further

said electrically-conductive contact ends of said first plurality of conductors are electrically coupled to said battery's power and data contacts, and further

said electrically-conductive contact ends of said second plurality of conductors are electrically coupled to said DC powered device's power and data contacts, and further

said connection interface is accessible to an external DC power module for accessing power and data along said first plurality of conductors to said "smart" battery, and along said second plurality of conductors to said DC powered device.

66. (previously presented) The apparatus in claim 65, wherein a flexible apparatus is a label device for being applied by a user to a pre-manufactured removable battery pack, said label printed with an indicia.

67. (previously presented) The apparatus as claimed in Claim 54, comprising:

a first non-conductive medium in contact with said resistive element;

said connection interface comprising a plurality of electro-conductive elements electrically coupled to said resistive element; and

means for attaching said non-conductive medium to at least one of said DC power source and said DC power module.

68. (previously presented) The apparatus as claimed in Claim 54, wherein said attaching means is a low tack adhesive.

69. (previously presented) The apparatus as claimed in Claim 54, further comprising replaceable portions that can be replaced where worn or damaged.

70. (previously presented) The apparatus as claimed in Claim 54, further comprising a printable exterior surface for displaying indicia.

71. (previously presented) The apparatus as claimed in Claim 64, wherein said insulator medium and said resistive element define a single flexible layer, whereby said apparatus is capable of conforming to one or more surfaces of one of said DC power source and said DC power module.

72. (previously presented) The apparatus as claimed in Claim 54, wherein said apparatus is configured to be a product label, applied to the exterior of one of said DC power source and said DC power module for monitoring the temperature of the device to which it is applied.

73. (previously presented) The apparatus as claimed in Claim 68, comprising an interface to a data-enabled DC power source.

74. (previously presented) The apparatus as claimed in Claim 68, wherein:

said apparatus has a reconfigurable geometry, adapted to conform to diverse locations on the device to which it is applied; and

such a geometry includes conforming to the device to which it is applied.

75. (previously presented) The apparatus as claimed in Claim 68, further comprising replaceable portions that can be replaced where worn or damaged.

76. (previously presented) The apparatus as claimed in Claim 68, further comprising a printable exterior surface for displaying indicia.

77. (previously presented) The apparatus as claimed in Claim 68, wherein at least one of said electro-conductive elements is capable of conducting a data signal.

78. (previously presented) The apparatus as claimed in Claim 54, wherein said resistive element is integral to said multi-conductor interface member.

100. (currently amended) An apparatus for monitoring temperature changes of a power source, said apparatus comprising:

~~an~~ a flexible insulator layer, upon one major surface area of which is deposited by a printing process a continuous thin ~~flexible~~ film of flexible ~~thermally-reactive~~ thermally-resistive ink;

a means for attaching ~~the~~ an other non-deposited surface of said insulator layer to the power source[[;]], so that said flexible layer conforms to any contoured surface of the power source, resulting in enhanced temperature sensitivity of said thermally-resistive ink;

a plurality of conductors, a first one of which is electrically coupled along a part of its length to an accessible edge of said ink film area, and a second one of which is electrically coupled along part of its length to an opposing edge of said ink film area, said conductors being so positioned in parallel to each other as to geometrically proscribe two opposite edges of a parallelogram, said ink film area therein of dimensions resulting in a specific resistive value;

the first and second conductors being electrically attached at their uncoupled terminuses to a monitoring device for acquiring power signals;

~~At least a third conductor being capable of carrying at least one of power and/or data signals; and~~

a predetermined power signal flowing from said power source through said first conductor, then across ~~the~~ said ink film to the second conductor, ~~detects an~~

~~altered~~ alters the resistive ~~characteristic~~ value of said ink as it thermally reacts to changes in temperature at said power source[[;]], and

said altered resistive value resulting in an anticipated change in the power signal acquired at the monitoring device, a degree of change to the signal determining temperature based on the resistive value;

whereby said apparatus monitors temperature changes of said power source.

106. (currently amended) The apparatus of claim ~~105~~ 100, wherein said apparatus is configured to be a product label applied to ~~the exterior~~ an exterior surface of said power source.

108. (previously presented) The apparatus of claim 100, further comprising a multi-conductor connector for accessing data at said power source.

110. (previously presented) The apparatus of claim 108, further comprising user-replaceable portions for redirecting temperature data and/or power signals.

112. (previously presented) The apparatus of claim 100, wherein said apparatus transfers temperature-related data signals.

113. (currently amended) The ~~connector element~~ apparatus of claim 108, wherein the multi-conductor connector further including a means of ~~inter-connecting~~ interconnecting a power source and a host device so as to simultaneously and concurrently be independently powered from one or more external peripherals.

114. (currently amended) The apparatus of claim 113, wherein said ~~enabling means~~ interconnecting means functions as an interface for ~~inter~~connecting at least two ~~of three or more~~ devices, sources, and peripherals.

115. (previously presented) The apparatus of claim 113, further comprising a jumpered terminal connector for reconnecting power and/or data conductors upon disconnecting an attached peripheral.

116. (previously presented) An apparatus for monitoring temperature functions of a power source, said apparatus comprising single non-conductive layer upon which is applied a substantial area of thermally-resistive ink as a continuous film, said area of ink being partitioned into segments by the application of a plurality of conductors, each electrically attached along part of its length to said ink area so as to be parallel to an adjacent conductor, so as to parse out geometric segments of said ink area as independent positive temperature coefficient thermistors;

whereby, upon being attached to a power source, each segment separately monitors the specific surface area of said power source to which it is in contact.